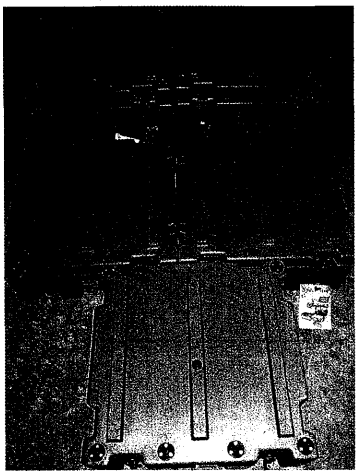
A-DEC PORTABLE DENTAL SUITE
NSN 6520-66-154-3576 (PDS 110V)
NSN 6520-66-150-8672 (PDS 240V)

GENERAL DESCRIPTION

The **A-dec Portable Dental Suite** consists of five modules packed in Military Specification plastic transport cases. These are numbered 1 to 5. The cases all measure 550mm wide by 550mm deep. Two of the cases are 450mm high while the other three are 225mm high.



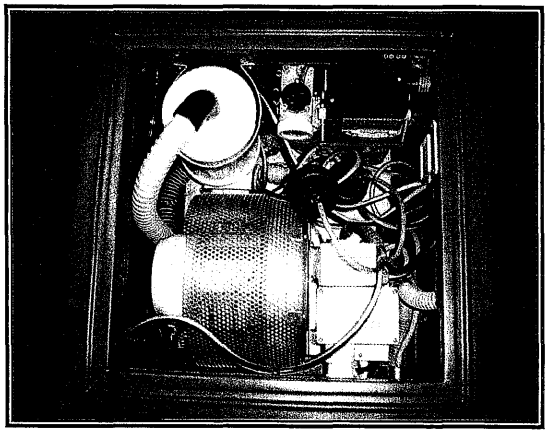
MODULE	Equipment/Product	A-dec Part No.	PDS 110V NSN 6520-66-154-3576	PDS 240V NSN 6520-66-150-8672
MODULE 1	Power and Suction	AD-ADF VAC	NSN 6520-66-151-7558	
MODULE 2	A-dec Delivery Head	AD-ADF 3420	NSN 6520-66-151-7559	
MODULE 3	Clean Accessories EMS Piezon Kit Satelec Curing Light	AD-ADF ACC	NSN 8115-66-140-6362	
MODULE 4	Contaminated Accessories	AD-ADF HAZ	NSN 8115-66-140-6362	
MODULE 5	Jun-Air Compressor	AD-ADF COMP	NSN 6520-66-154-2444	NSN 6520-66-154-2447

NOTE
Please refer to ***AD-ADF Portables List*** for order of parts and accessories.
The List is available at:
Defence Material Organisastion, Land Systems Division, Victoria Barracks (VBM-D3)

The 5 modules consist of:

MODULE 1

POWER AND SUCTION MODULE - AD-ADF VAC
NSN 6520-66-151-7558

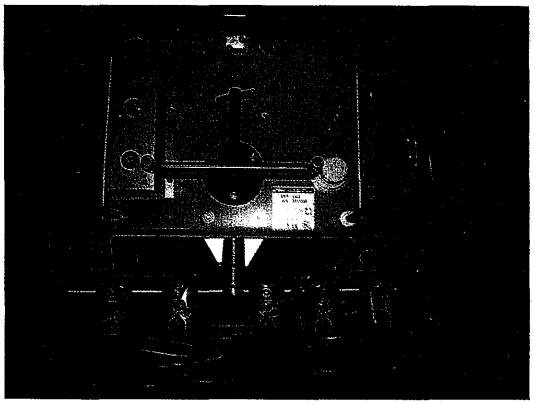


This module contains:

1. The power supply and power cables
2. The suction motor
3. The amalgam separator (Metasys Eco unit)
4. The bacteriological High Efficiency Particulate Aerosol (HEPA) filter
5. Muffler

MODULE 2

A-DEC DELIVERY HEAD - AD-ADF 3420
NSN 6520-66-151-7559

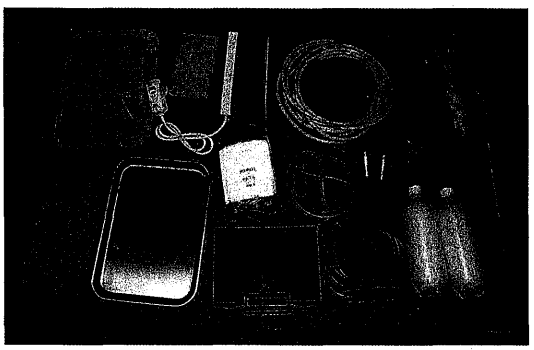


This module contains:

1. A-dec delivery head incorporating self-contained water connection
2. Foot control with tubing

MODULE 3

CLEAN ACCESSORIES - AD-ADF ACC
NSN 8115-66-140-6362

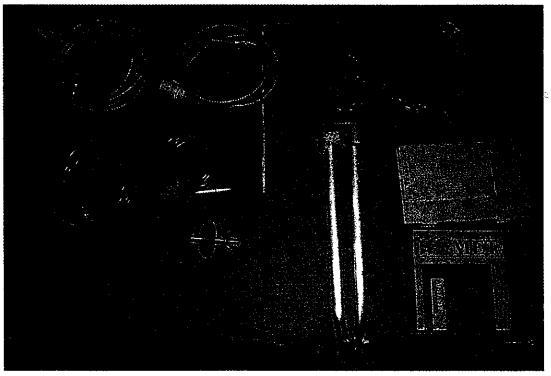


This module contains:

1. EMS piezon kit
2. Satelec curing light
3. Bracket table
4. Instrument tray
5. Silicone mat
6. Air hose with quick disconnect coupling (to connect compressor to A-dec delivery head)
7. Self-contained water supply bottle
8. Switched vacuum assistant's arm to hold the High Volume Evacuator (HVE), Saliva Ejector (SE) and A-dec Autoclavable Syringe
9. Low voltage extension cables to connect power supply in module 1 to delivery head
10. A plastic case for the initial delivery of EMS scaler handpiece and Satelec accessories that later can be used to contain spare parts
11. Scaler and curing light accessories
12. 110V / 240V power board
13. Tool kit
14. Autoclavable syringe heads (2x)
15. Spare parts

MODULE 4

CONTAMINATED ACCESSORIES - AD-ADF HAZ
NSN 8115-66-140-6362

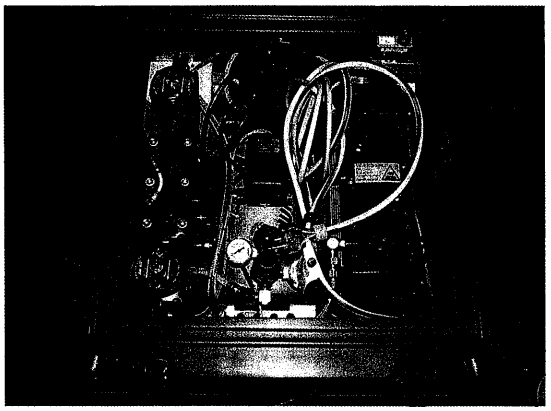


This module contains 'zip-lock' plastic bags with the following accessories:

1. Two drain tubes (short and long)
2. Two High Volume Evacuation hoses (short and long)
3. Two saliva ejector hoses (short and long)
4. Delivery head tripod mount
5. Metasys disinfection starter kit (Green & Clean)
6. Unused Metasys canister with packaging

MODULE 5

JUN-AIR COMPRESSOR - AD-ADF COMP
NSN 6520-66-154-2444 = PDS 110V
NSN 6520-66-154-2447 = PDS 240V



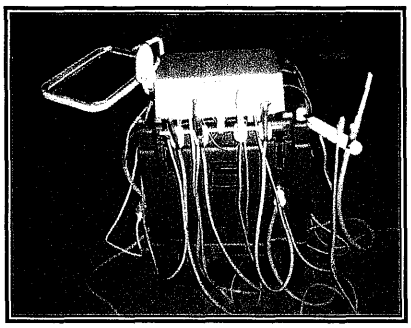
This module contains the following accessories:

1. Compressor motor
2. Moisture control dryer
3. Filters
4. Cooling Fans

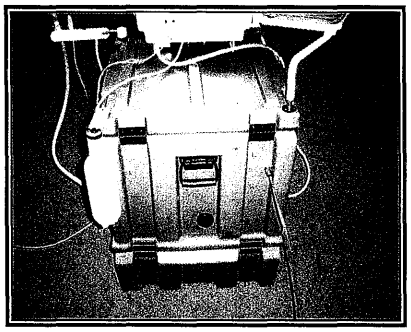
SETTING UP

MODULE 1
POWER AND SUCTION MODULE - AD-ADF VAC
NSN 6520-66-151-7558

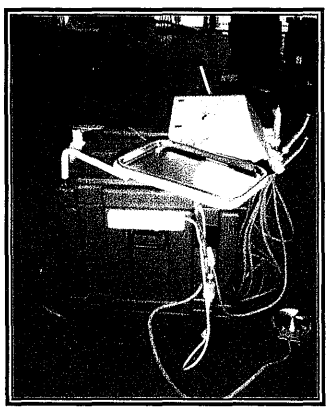
1. Standing in front of the case, open the lid away from you (the side with three connection portals will define the right side of the case, the left side having one portal).
2. Unscrew all four dust covers from inside the case (three on the right, one on the left)
3. Remove dust covers from the front of the case (total of two).
4. Remove dust covers from the back of the case (total of two).
   NOTE: The large suction exhaust dust cover on the back of the case must be removed for the effective ventilation and operation of the system.
5. Feed the short power cord with the in-line switch through the left side portal and secure vermin proof vent cap from the inside.
6. Feed the long power cord through the portal below the handle on the right hand side and secure vermin proof vent cap from the inside.
7. The two remaining short gray power cords are to be placed through the remaining portals (it is not important which cord goes through which portal) and secure vermin proof vent caps from the inside.
8. Activate the blue earth leakage circuit breaker (ELCB) switch on the power supply by placing the switch toggle in the upper position. Power is now on.
9. **Ensure that a Metasys canister is in place.**
10. Close and latch lid. The High Volume Evacuator (HVE) tubing, Saliva Ejector (SE) and drain will be connected later.



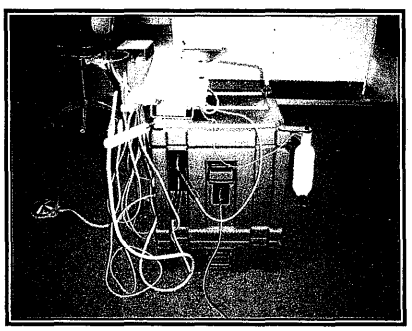
Front view with delivery head in place



Back of unit



Left hand view



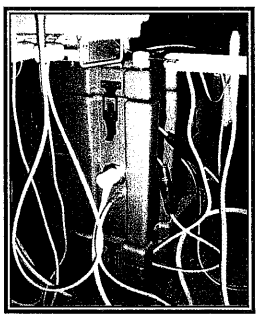
Right hand view

MODULE 2

A-DEC DELIVERY HEAD - AD-ADF 3420
NSN 6520-66-151-7559

IMPORTANT: Before utilising the Portable Dental Suite, a waterline asepsis procedure must be performed. Please refer to ***Waterline Maintenance – Quick Start Guide*** *attached.*

1. Open delivery head module 2.
2. Carefully uncoil the tubing and remove delivery head.
3. After determining the most appropriate configuration of modules, carefully place the mounting bracket located under the delivery head into the two central ferrules on the top of either the power / suction module case or the delivery head module case.
4. Connect power cord from the power / suction module to delivery head.
5. Position assistant's arm in a mounting hole to either right or left of the delivery head.
6. Connect power cord from the power / suction module to the assistant's arm.
7. Screw the pressurizing lid to the self-contained water bottle, connect to the appropriate connectors emanating from the back of the delivery head and slot the water bottle assembly into an appropriate mounting hole.
8. Connect Satelec curing light to mating socket assembly on the front left hand corner of the delivery head.
9. drain requirements, connect either the short or long clear plastic drain tubing with quick disconnect connectors to the corresponding connector at the back of the power / suction module. This tubing drains 'gray' contaminated waste water from the Metasys separator. This waste needs to be disposed of appropriately.
10. Depending on operator / delivery head positioning, connect either the long or short high velocity evacuation and saliva ejector tubings from the assistant's arm to the appropriate connections on the front of the power / suction module.



Corner view of connections

11. Connect the yellow plastic compressed air tubing with quick disconnect connection from the compressor to the appropriate connector on the back of the delivery head.
12. Plug power cord from the power / suction module into available 240V AC electrical supply.
13. If required, locate the supplied 240V power board on the outside of the power / suction module (module 1).
14. If desired, the bracket table can be located in a spare mounting hole.

MODULE 5

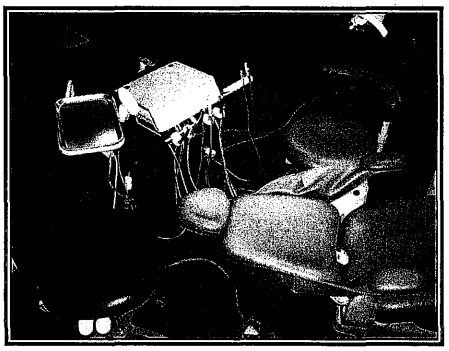
JUN-AIR COMPRESSOR - AD-ADF COMP
NSN 6520-66-154-2.444 = PDS 110V / NSN 6520-66-154-2447 = PDS 240V

1. Open lid of transportation case.
2. Remove dust covers on inside front edge of case.
3. Feed the entire length of power cable through hole to where dust cover on cable can be screwed onto transportation case.
4. Connect plug to power outlet and turn **ON**.
5. Close lid of transportation case.
6. Remove all four external ventilation dust covers on outside of transportation case.
   NOTE: If all dust covers are not fully unscrewed and removed the compressor will not operate.
7. If the compressor fails to operate, open transportation case lid and check/reset the circuit breaker located on the right rear electrical module.
   NOTE: With the switch in the UP position the breaker is ON.
8. Condensate moisture can be drained via the brass valve on the rear external face of the transportation case. This procedure should be performed on a daily basis when the compressor is deployed.
   NOTE: If the compressor is excessively hot or operated in high ambient temperatures, the transportation case lid should be left in the open position. This unit is thermally protected and can automatically restart when the overload resets.

CONFIGURATIONS

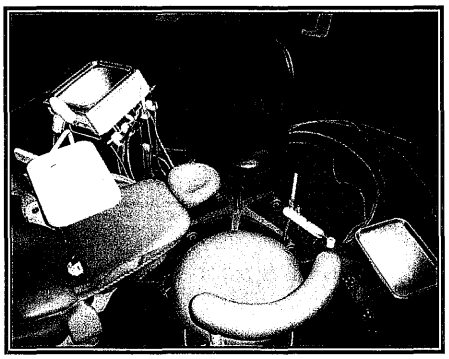
Because of the modular nature of the **Portable Dental Suite**, it can be configured in numerous ways. Suggested configurations are proposed below. The compressor can go within close proximity.

Rear Positioning
Where space is a prime consideration, the power / suction module can be mounted on a 225mm high case and positioned at the head of the dental chair. The delivery head, self-contained water supply, assistant's arm and bracket table can all be positioned in the mounting holes on the lid of the power / suction module.



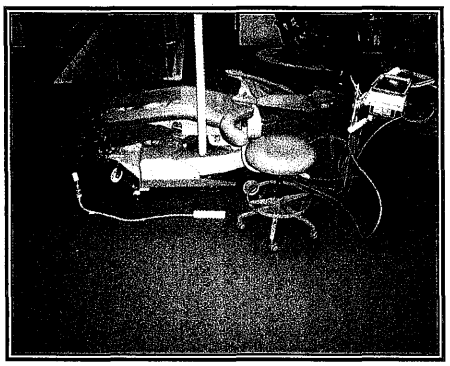
Example of rear positioning

Split Configuration

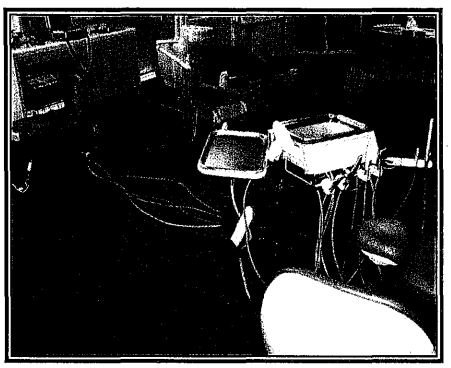


Example of a split configuration

Remote Configuration
Alternatively, the power / suction module can be located remote from the delivery head via the use of the longer set of tubings and electrical cords.



Example A
Remote suction / power module at the toe of the chair



Example B
Remote power / suction module away from the clinical area

Other Configurations
Other configurations will become evident depending on the deployed environment and operator preferences.

PACKING UP AND MAINTENANCE

Storing the **Portable Dental Suite** requires similar maintenance to that of any other dental unit.
NOTE: Refer to ***Daily Maintenance for A-dec Unit*** attached.

PROCEDURES

1. **Self-contained water system for short term storage of less than a week:**
   a. Empty, clean and refit the plastic water bottle;

   b. Remove all handpieces, couplings, scalers, autoclavable syringes and tips;

   c. Purge all handpiece lines of water using the Handpiece Flush Valve found at the rear underside of the delivery head.

2. **Self-contained water system for long term storage:**
   a. Perform steps a, b, and c for short term storage procedures above;

   b. Perform the water line asepsis procedure using household bleach **(NOT MILTON'S SOLUTION)** DILUTED 1:10 WITH WATER. SEE LAMINATED A-DEC WATER LINE ASEPSIS INSTRUCTION CARD INCLUDED IN THE INSTRUCTION MANUALS FOR FULL DETAILS OF PROCEDURES.

3. Appropriately disinfect, clean and store all handpieces and couplings.

4. Refer to the Metasys Clean and Green instruction brochure cleaning the High Velocity Evacuator (HVE) and Saliva Ejector (SE) suction lines as recommended. Disconnect suction lines, coil and place in 'contaminated' zip lock plastic bags.

5. Disconnect dainage tube from the rear of the power / suction module. Drain and store in 'contaminated' zip lock plastic bag.

6. For short term, non aggressive relocations, the Metasys canister may remain in place (see Transportation guidelines).
   NOTE: Power / suction module can only be transported in this configuration when in an UPRIGHT position and no rough roads. For the majority of transportation the Metasys canister must be removed and permanently sealed with the supplied lid. Place canister in the box supplied with the replacement canister and return to A-dec Australia upon return to base. Place replacement canister onto the Metasys unit for transport to protect Metasys submersible pump and probes.

7. **Locate the blue circuit breaker switch in the power / suction module and switch OFF (Switch toggle to down position).**

8. Store assistant's arm, self-contained water bottle and power cords appropriately in the clean module 3.

9. Disconnect Satelec curing light.

10. Pack delivery head into module 2.

11. Pack Satelec curing light into module 3.

12. Remove and store tray holder.

13. Unscrew vents and stow all power cords into the power / suction module 1.

14. **Reattach all dust covers and latch lids of all modules.**

15. Ensure modules remain **UPRIGHT** at all times.

16. All external surfaces are to be wiped with warm soapy water and soft cloth. Do not use aerosol sprays. See enclosed laminated guidelines for A-dec equipment.

TRANSPORTING THE EQUIPMENT

1. All case are to be cleaned of dust and equipment de-contaminated prior to storage.
2. All cases are to be kept in the **UPRIGHT** position (Refer to arrows on cases).
3. All tubing and power cords are to be disconnected.
4. All dust covers on case number 1 (a total of eight) are to be in place prior to transportation.
5. All equipment is to be packed in its appropriate case.
6. All de-contaminated equipment must be placed in an appropriate 'zip-lock' plastic bag and placed in the contaminated module (case number 4).
7. If the suction / power module (the large case numbered 1) is to be moved only a short distance the Metasys canister may remain in position on the Metasys Eco unit provided that the suction module remains **LEVEL** and **UPRIGHT**.

   IMPORTANT: The suction module cannot be titled when the Metasys canister is in position.
8. For general transportation the Metasys canister is to be removed from the Metasys unit and permanently sealed with the appropriate lid. The used canister can be transported in the contaminated module (case number 4) and subsequently returned to A-dec Australia in the shipping carton supplied with the replacement canister.

   NOTE: An unused Metasys canister is to be fitted onto the Metasys unit for transportation thereby protecting the submersible pump probes. Replacement canisters are to be installed with great care thereby avoiding damage to the unit. See enclosed Metasys Instructions for correct fitment of canister.